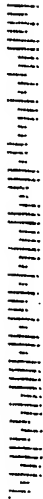


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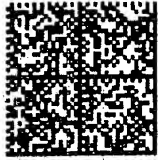
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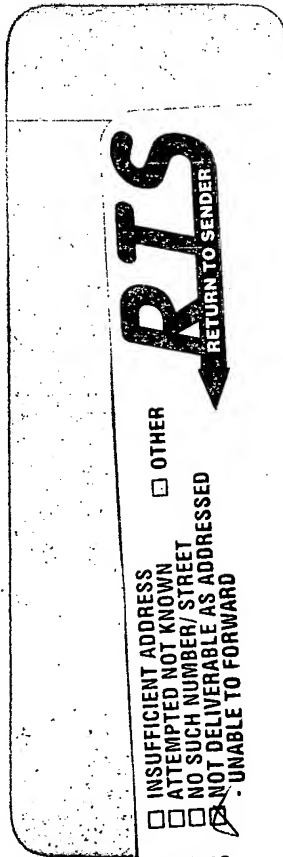
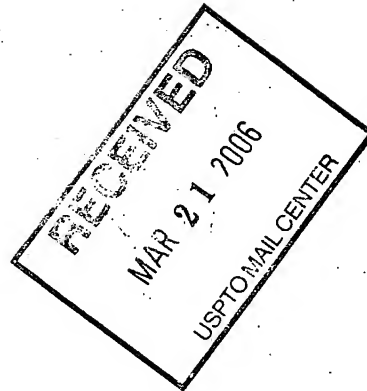
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1743



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,287	11/06/2001	Reinhard Janka	GK-ZEI-3140 / 500343.2014	5952

7590

03/07/2006

Gerald H Kiel
Reed Smith
375 Park Avenue
New York, NY 10152-1799



EXAMINER

GAKH, YELENA G

ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,287

Applicant(s)

JANKA ET AL.

Examiner

Yelena G. Gakh, Ph.D.

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12-22.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/06/01</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Preliminary amendment filed on 11/06/01 is acknowledged. Claims 12-22 are pending in the application.

Claim Objections

2. Claims 13-18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims appear to recite method steps in the apparatus claims. It is not apparent as to what structural elements are recited in the claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 12-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites "at least one device component for analyzing molecular interactions in small volumes". It is not clear, what "at least one device component", which is capable of analyzing molecular interactions is meant in the claim. The examiner failed to find any definition of such component in the specification. The limitation renders the claims unclear and indefinite.

It is not clear, what an "imaging *method* means" is? Is this the "imaging means"? How does this means differ from the imaging microscope unit? "The imaging method means for determining ... measurement locations" is not a clear and definite term.

Art Unit: 1743

It is not clear as to what the last structural limitation, "said control unit and a computer" might be? The shared control unit is already recited as the structural element in the claim. Should it be "a computer for graphically depicting analysis results"? What are the "results of the device components"? The device components cannot have "results". The results are obtained by the method.

Claims 13-18 recite method steps rather than structural elements as further limitations of the parent claim. This is an improper dependency. Proper structural elements, such as "a laser scanning microscope" as a limitation for "imaging microscope unit" should be recited in the claims.

Claims 17 and 18 appear to be written in independent form, although they are indicated as dependent on claim 12. It is not clear, which structural elements of claim 12 are further limited by recitations of claims 17 and 18. Claim 17 should recite e.g. "wherein the at least one imaging microscope unit is (*or comprises*) a laser scanning microscope (LSM)". The structural relations between different elements of claim 12 should be clearly recited in claim 17.

Claim 18 is not clear.

Claim 19 appears to depend on claim 12; however, the recitation related to this dependency is not clear. Claim 12 does not recite, "detecting the light coming from an illuminated specimen"; therefore, the recitation "according to claim 12" recited in the preamble of claim 19 is not justified.

What is "scanning the specimen *is*"? The method steps of claim 19 do not seem to be related to the structural elements of the parent claim 12. What is "a first detector"? There is no "first detector" in claim 12. There is no FCS recited in claim 12. The claim has antecedent basis issues.

What is "the storage" in claim 20? Is this the computer memory? It is suggested to change the term to the more relevant one.

Claim 22 is not clear.

In conclusion, the claims apparently require significant amendment in order to correct English and clarify the subject matter of the claims. The claims should recite the subject matter, which is closer to the description of the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 12-22** are rejected under 35 U.S.C. 102(b) as being anticipated by any of Qian et al. (Applied Optics, 1991, IDS), Peterson et al. (Biophysical Journal, 1993, IDS), or Sandison et al. (Handbook of Biological Confocal Microscopy, 1995, IDS).


Qian, Peterson or Sandison disclose method and apparatus for performing fluorescence correlation spectroscopy using laser scanning microscope for analysis of interactions and motion of biological objects, which inherently includes all particular structural elements and method steps recited in the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yelena G. Gakh, Ph.D. whose telephone number is (571) 272-1257. The examiner can normally be reached on 9:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3/2/06


YELENA GAKH
PRIMARY EXAMINER

10/009287

PTO-1449 Equivalent

LIST OF PRIOR ART CITED BY APPLICANT
(Filed on November 6, 2001)

JC13 Rec'd PCT/PTO 06 NOV 2001

Docket No. GK-ZEI-3140 / 500343.20141
 Applicant(s): Reinhard JANKA, Volker JUENGEL, Tilo JANKOWSKI and Frank HECHT
 Application No. (Int'l Appln No. PCT/EP01/01663 15FEB01) Group:
 Filed: concurrently herewith - November 6, 2001 Examiner:

U.S. PATENT DOCUMENTS

Exam. Init		Document Number	Date	Name	Class	Sub-Class	Filing Date Appropriate
Y6	AA	5,079,169	01/07/92	Chu, et al.			
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	CLASS	Sub-Class	Translation YES NO
Y6	AL	WO 94/16313	07/21/94	WIPO			✓ Abstract only
Y6	AM	195 33 092	03/13/97	Germany			✓ US 5,815,262
	AN	196 49 605	06/04/98	Germany			✓ Abstract only
	AO	197 02 914	09/17/98	Germany			✓ Abstract only
	AP	197 57 740	07/08/99	Germany			✓ Abstract only
✓	AQ	198 40 489	03/09/00	Germany			✓ Abstract only

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

Y6	AR	"Counting Single Chromophore Molecules for Ultrasensitive Analysis and Separations on Microchip Devices" Julius C. Fister, et al. (Anal.Chem 1998, 70, 431-437)
	AS	"Quantitative Fluorescence Confocal Laser Scanning Microscopy (CLSM) David R. Sandison, et al. (Handbook of Biological Confocal Microscopy, 1995, 39
	AT	XP-001005601 "Three-Dimensional Fluorescence Microscopy in Two-Photon Excitation Regime" Diaspro, et al.
	AU	XP-001005572 "Dynamic image correlation spectroscopy (ICS) and two-color image cross-correlation spectroscopy (ICCS): concepts and application" Wiseman, et al.
	AV	XP-000202077 "Analysis of confocal laser-microscope optics for 3-D fluorescence correlation spectroscopy" Qian, et al.
✓	AW	XP-001000182 "Quantitation of Membrane Receptor Distributions by Image Correlation Spectroscopy: Concept and Application" Petersen, et al.
	AX	
	AY	
	AZ	

Examiner: *Helu Helu* Date: 03/02/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.